

REMARKS

In the Official Action mailed on **4 November 2005**, the Examiner reviewed Claims 1-17. Claims 1-17 were rejected under 35 U.S.C. §102(b) as being anticipated by Santhanam (USPN 5,704,053, hereinafter "Santhanam").

Rejections under 35 U.S.C. §102(b)

Independent claims 1, 8, and 13 were rejected as being anticipated by Santhanam. Applicant respectfully points out that Santhanam teaches inserting prefetch instructions into the code based on **estimated latency** (see Santhanam, col. 6, line 18 to col. 8, line 61).

In contrast, the present invention inserts prefetch instructions based on the **ratio of outstanding prefetches and the number of prefetch streams** (see page 15, lines 21-23 of the instant application). This is beneficial because available processors operate too fast to cover memory latency with a prefetch. By inserting multiple prefetches, utilization is kept high without overflowing the system with requests. There is nothing within Santhanam, either explicit or implicit, which suggests inserting prefetch instructions based on the ratio of outstanding prefetches and the number of prefetch streams.

Accordingly, Applicant has amended independent claims 1, 8, and 13 to clarify that the present invention inserts prefetch instructions based on the ratio of outstanding prefetches and the number of prefetch streams. These amendments find support on page 15, lines 21-23 of the instant application.

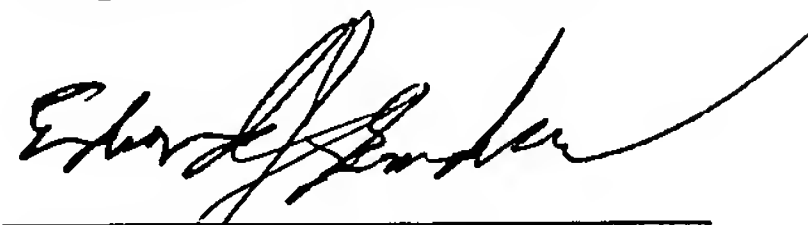
Hence, Applicant respectfully submits that independent claims 1, 8, and 13 as presently amended are in condition for allowance. Applicant also submits that claims 2-7, which depend upon claim 1, claims 9-12, which depend upon claim 8, and claims 14-17, which depend upon claim 13, are for the same reasons in condition for allowance and for reasons of the unique combinations recited in such claims.

CONCLUSION

It is submitted that the present application is presently in form for allowance. Such action is respectfully requested.

Respectfully submitted,

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Date: 4 January 2006

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